TRANSMITTAL FORM  (to be used for all correspondence after initial for the Number of Pages in This Submission	Add Heit	Approved for use through 04/30/2003. OMB 0651-0031 ent and Trademark Office; U.S. DEPARTMENT OF COMMERCE tition of information unless it displays a valid OMB control number 10/065,277  9/30/2002  Roman Chistyakov  1753  Rodney G. McDonald  ZON-001		
Fee Transmittal Form  Fee Attached  Amendment/Reply  After Final  After Final  After Final  After Final  After Allowance Communication to Group  Appeal Communication to Board of Appeals and Interferences  Appeal Communication to Group  Appeal Communication to Group  Appeal Communication to Group  (Appeal Notice, Brief, Reply Brief)  Petition to Convert to a Provisional Application  Power of Attorney, Revocation  Change of Correspondence Address  Terminal Disclaimer  Express Abandonment Request  Information Disclosure Statement  Certified Copy of Priority  Document(s)  Response to Missing Parts/ Incomplete Application  Response to Missing Parts/ Incomplete Application  Response to Missing Parts  Information Disclosure Statement  Response to Missing Parts/ Incomplete Application  Response to Missing Parts  Information Disclosure Statement  Response to Missing Parts/ Incomplete Application  Response to Missing Par				
Firm or Individual Signature  Date  July 2, 2003	ERTIFICATE OF TRANSMISSION IS IN TRANSMISSION IS IN TRANSMISSION IN TRANSMISSI	N/MAILING with the United States Postal Service with sufficient postage as		

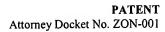
This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

July 2, 2003

Date

Signature

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S):

Roman Chistyakov

SERIAL NO.:

10/065,277

GROUP NO.:

1753

FILING DATE:

September 30, 2002

**EXAMINER:** 

Rodney Glenn

McDonald

TITLE:

HIGH-POWER PULSED MAGNETRON SPUTTERING

### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. BOX 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. §1.97, Applicants hereby make of record the references listed on the accompanying Form PTO-1449 for consideration by the Examiner in connection with the examination of the above-identified patent application. Copies of the references are enclosed.

## **REMARKS**

In accordance with the provisions of 37 C.F.R. §1.97, this statement is being filed (CHECK ONE):

(1)	within three (3) months of the Filing Date or before the mailing date of the First Office Action on the merits; or
(2)	after the period defined in (1) but before the mailing date of a Final Rejection or Notice of Allowance, and
	the requisite Statement is below, OR
	the requisite fee under Rule 1.17(p), namely \$180.00, is included herein, or
(3)	after the mailing date of a Final Rejection or Notice of Allowance but before the payment of the Issue Fee, AND
	Applicant hereby Petitions the Commissioner to accept and consider the attached Information Disclosure Statement, AND
	the requisite Statement is below, AND
П	the requisite petition fee due under Rule 1 17(i)(I) namely \$130,00 is included herein

Information Disclosure Statement

Serial No.: 10/065,277

Page 2 of 2

It is respectfully requested that each of the references shown on the attached Form PTO-1449 be made of record in this application.

#### **STATEMENT**

As required under §1.97(e), Applicants, through the undersigned, hereby state either that [check the appropriate space]:

- 1. [E]ach item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application **not more than** three months prior to the filing date of the Information Disclosure Statement; or
- [N]o item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the person signing this Statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to any individual designated in §1.56(c) more than three months prior to the filing of the Information Disclosure Statement.

# **FEE AUTHORIZATION**

Should any fee associated with the submission of this paper not be attached hereto as a check, the Commissioner is authorized to charge the missing fee to our Deposit Account, No. 501211. Any overpayments should be credited to said Deposit Account.

Respectfully submitted,

Date: July 2, 2003 Reg. No. 40,137

Tel. No.: (781) 271-1503

Fax No.: (781) 271-1527

Kurt Rauschenbach

Atty/Agent for Applicant(s)

Rauschenbach Patent Law Group, LLC

Post Office Box 387

Bedford, MA 01730

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Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

Complete if Known			
Application Number	10/065,277		
Filing Date	9/30/2002		
First Named Inventor	Chistyakov		
Art Unit	1753		
Examiner Name	McDonald		
Attorney Docket Number	ZON-001		

			U.S. PATE	NT DOCUMENTS	
Examiner	Cita	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
Examiner Initials		Number - Kind Code <sup>2</sup> (if known	==	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
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	FOREIGN PATENT DOCUMENTS							
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Complete if Known Substitute for form 1449B/PTO 10/065,277 **Application Number** INFORMATION DISCLOSURE 9/30/2002 Filing Date Chistyakov STATEMENT BY APPLICANT First Named Inventor 1753 Group Art Unit McDonald (use as many sheets as necessary) **Examiner Name** of Attorney Docket Number ZON-001 Sheet

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	Т
Examiner Initials	Cite No. <sup>1</sup>	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue	1
	C1	BOOTH, ET AL., The Transition From Symmetric To Asymmetric Discharges In Pulsed 13.56 MHz Capacity Coupled Plasmas, J. Appl. Phys., July 15, 1997, Pgs. 552-560, Vol. 82 (2), American Institute of Physics.	-
	C2	BUNSHAH, ET AL., Deposition Technologies For Films And Coatings, Materials Science Series, Pgs. 176-183, Noyes Publications, Park Ridge, New Jersey.	
	С3	DAUGHERTY, ET AL., Attachment-Dominated Electron-Beam-Ionized Discharges, Applied Science Letters, May 15, 1976, Vol. 28, No. 10, American Institute of Physics.	
HACOLINIA DI PERIODE D	C4	GOTO, ET AL., Dual Excitation Reactive Ion Etcher for Low Energy Plasma Processing, J. Vac. Sci. Technol. A, Sept./Oct. 1992, Pgs. 3048-3054, Vol. 10, No. 5, American Vacuum Society.	
	C5	KOUZNETSOV, ET AL., A Novel Pulsed Magnetron Sputter Technique Utilizing Very High Target Power Densities, Surface & Coatings Technology, Pgs. 290-293, Elsevier Sciences S.A.	
	C6	LINDQUIST, ET AL., High Selectivity Plasma Etching Of Silicon Dioxide With A Dual -Frequency-27/2-MHz-Capacitive-RF-Discharge.	
***************************************	C7	MACAK, Reactive Sputter Deposition Process of Al2O3 and Characterization Of A Novel High Plasma Density Pulsed Magnetron Discharge, Linkoping Studies In Science And Technology, 1999, Pgs. 1-2, Sweden.	
	C8	MACAK, ET AL., Ionized Sputter Deposition Using An Extremely High Plasma Density Pulsed Magnetron Discharge, J. Vac. Sci. Technol. A., July/August 2000, Pgs. 1533-37, Vol. 18, No. 4, American Vacuum Society.	

Examiner	Date
Signature	Considered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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of

Complete if Known				
Application Number	10/065,277			
Filing Date	9/30/2002			
First Named Inventor	Chistyakov	Chicago		
Group Art Unit	1753	(		
Examiner Name	McDonald	-		
Attorney Docket Number	ZON-001	Con D		

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	0	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		
	C9	MOZGRIN, ET AL., High-Current Low-Pressure Quasi -Stationary Discharge In A Magnetic Field: Experimental Research, Plasma Physics Reports, 1995, Pgs. 400-409, Vol. 21, No. 5, Mozgrin, Feitsov, Khodachenko.		
	C10	ROSSNAGEL, ET AL., Induced Drift Currents In Circular Planar Magnetrons, J. Vac. Sci. Technol. A., January/February 1987, Pgs. 88-91, Vol. 5, No. 1, American Vacuum Society.		
	CII	SHERIDAN, ET AL., Electron Velocity Distribution Functions In A Sputtering Magnetron Discharge For The EXB Direction, J. Vac. Sci. Technol. A., July/August 1998, Pgs. 2173-2176 Vol. 16, No. 4, American Vacuum Society.	,	-
	C12	STEINBRUCHEL, A Simple Formula For Low-Energy Sputtering Yields, Applied Physics A., 1985, Pgs. 37-42, Vol. 36, Springer-Verlag.		144
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